

Remarks

The present communication responds to the Office Action on December 18, 2006.

Claim Rejections 35 USC Section 103, Items 2-3 of Action

The action rejects Claims 2, 4, 6, 8, 10 and 12 as being unpatentable over Yoshimura 6,291,094. Applicant has amended Claim 2 to clarify the inventions patentability over Yoshimura. Claim 2 now recites that there is a joining layer having a specific composition and that the conductive contact layer is formed through the joining layer. Finally, the amendments clarify that the contact layer is a composite compound. These features, in connection with the rest of the recitations in applicant's Claim 2 are not obvious in view of Yoshimura.

Yoshimura fails to disclose or suggest that the conductive contact layer is of a composite compound with a band gap of 0.6eV or less. Applicant's contact layer has advantages over Yoshimura. For instance, applicant, by utilizing a composite compound as opposed to Yoshimura's second coating layer of carbon material, reduces electric resistance. Additionally, the composite compound allows for strong adherence between the joining layer (first layer) and the conductive contact layer (second layer), so that the separation of the contact layer is suppressed. Yoshimura, by using a second coating layer of carbon, does not have strong adherence between the first coating layer and the second coating layer. These advantages demonstrate the unobviousness of amended Claim 2's recitations over Yoshimura. The rejection to Claim 2 should be withdrawn.

As the remaining claims depend from Claim 2, they are allowable for the same reason as his Claim 2. Accordingly, the rejection to Claims 4, 6, 10 and 12 should also be withdrawn.

Item 4 of Action 35 USC Section 103 Rejection of Claim 14

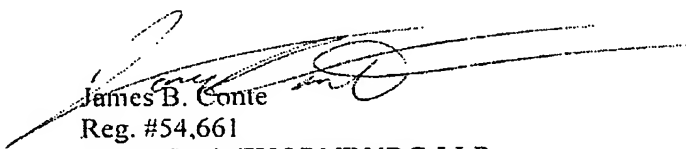
The action rejects Claim 14 as obvious in view of Yoshimura and Kunimoto. Applicant respectfully disagrees. First, Claim 14 includes all of the limitations of amended Claim 2 and is thus allowable for the reasons with respect to Claim 2. Further, Claim 14 has additional allowable features. Kunimoto does not disclose the recited thickness of applicant's conductive layer. The conductive layer's thickness is not a mere design choice. It rather offers unexpected advantages over the art. The thickness makes it possible to secure a current path between the bipolarplate substrate and the gas diffusion layer while keeping the manufacturing cost inexpensive. Accordingly, the rejection to Claim 14 should be withdrawn

CONCLUSION

Applicant has addressed each of the issues raised in the office action. A notice of allowance should now issue.

March 14, 2007

Respectfully Submitted,



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